## REMARKS

This Amendment is filed in response to the Office Action mailed on December 23, 2003. All objections and rejections are respectfully traversed.

Claims 1- 36 are in the case.

Claims 21-36 were added to better claim the invention.

The Specification was amended to bring the "Related Applications" section up-to-date.

At paragraphs 2-3 claim 3 was rejected under 35 U.S.C. § 112, second paragraph. Amendment of claim 3 is believed to satisfy this rejection.

At paragraphs 4-5 claims 1, 2, 4, 5 and 17 were rejected under 35 U.S.C. § 102(e) as being anticipated by Key et al. U.S. Patent No. 6,272,621 issued August 7, 2001 (hereinafter Key).

Applicant's invention, as set forth in representative claim 1, comprises in part:

> 1. A method for ***enabling out-of-order processing of contexts*** by processors of a multiprocessor system, the processors arrayed as a plurality of clusters embedded between input and output buffers, the method comprising the steps of:
>
> ***assigning each context a queue identifier (ID) and a sequence number, the queue ID uniquely identifying a flow of the context and the sequence number denoting an order of the context within the flow;***

distributing the contexts from the input buffer to the clusters;
allowing out-of-order context processing among the clusters for contexts having different queue IDs; and
***enforcing first in, first out (FIFO) synchronization context processing among the clusters for contexts having the same queue ID.***

Key discloses an arrayed processing engine which has parallel clusters of processors placed between an input buffer and an output buffer. The chains of processors can perform parallel, independent, processing of different data sets.

Applicant respectfully urges that Key has no disclosure of Applicant's claimed novel ***enabling out-of-order processing of contexts . . . assigning each context a queue identifier (ID) and a sequence number, the queue ID uniquely identifying a flow of the context and the sequence number denoting an order of the context within the flow . . . enforcing first in, first out (FIFO) synchronization context processing among the clusters for contexts having the same queue ID.***

Further, Applicant respectfully urges that Key discloses parallel independent processing, but that Key is silent concerning Applicant's claimed ***enforcing first in, first out (FIFO) synchronization context processing among the clusters for contexts having the same queue ID.***

Accordingly, Applicant respectfully urges that Key is legally precluded from anticipating Applicant's claimed novel invention under 35 U.S.C. § 102(e) because of the absence from Key of Applicant's claimed ***enforcing first in, first out (FIFO) synchronization context processing among the clusters for contexts having the same queue ID.***

At paragraph 6 of the Office Action, Claims 1-4, 13 and 17 were rejected under 35 U.S.C. § 102(e) as being anticipated by Iadonato et al. U.S. Patent Publication No. 2002/0053014 A1 (hereinafter Iadonato).

Iadonato describes a method for assigning tags to control instruction processing in a superscalar processor for the purpose of using the tag to access information brought from a resource, such as data read from a memory by a memory read instruction, so that the information may be read from a register file in an order needed by the next instruction to execute.

Applicant respectfully urges that Iadonato has no disclosure of Applicant's claimed novel ***enabling out-of-order processing of contexts . . . assigning each context a queue identifier (ID) and a sequence number, the queue ID uniquely identifying a flow of the context and the sequence number denoting an order of the context within the flow . . . enforcing first in, first out (FIFO) synchronization context processing among the clusters for contexts having the same queue ID.***

Further, Applicant respectfully urges that Iadonato uses tags to associate data read from a resource with an instruction which needs the data. That is, Iadonato is silent concerning Applicant's claimed novel ***enabling out-of-order processing of contexts . . . enforcing first in, first out (FIFO) synchronization context processing among the clusters for contexts having the same queue ID.***

Accordingly, Applicant respectfully urges that Iadonato is legally precluded from anticipating Applicant's claimed invention under 35 U.S.C. § 102(e) because of the absence from Iadonato of Applicant's claimed novel ***enabling out-of-order processing of contexts . . . assigning each context a queue identifier (ID) and a sequence number, the queue ID uniquely identifying a flow of the context and the sequence number denoting an order of the context within the flow . . . enforcing first in, first out (FIFO) synchronization context processing among the clusters for contexts having the same queue ID.***

At paragraphs 7-8 of the Office Action, claims 5-12, 14-16, and 18-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Iadonato in view of Mesnil et al. U.S. Patent No. 3,923,139 issued December 2, 1975 (hereinafter Mesnil).

Mesnil discloses a control unit for controlling the print logic of a series printer. The control unit has a buffer for supplying characters to the printer in a predetermined stream.

Applicant respectfully urges that all cited art, Iadonato and Mesnil, is silent concerning Applicant's claimed novel ***enabling out-of-order processing of contexts . . . assigning each context a queue identifier (ID) and a sequence number, the queue ID uniquely identifying a flow of the context and the sequence number denoting an order of the context within the flow . . . enforcing first in, first out (FIFO) synchronization context processing among the clusters for contexts having the same queue ID.***

Than is, both Iadonato and Mesnil are silent concerning ***enabling out-of-order processing of contexts . . .*** and then enforcing FIFO order in the results by ***assigning each context a queue identifier (ID) and a sequence number, the queue ID uniquely identifying a flow of the context and the sequence number denoting an order of the context within the flow . . . enforcing first in, first out (FIFO) synchronization context processing among the clusters for contexts having the same queue ID.***

Accordingly, Applicant respectfully urges that Iadonato and Mesnil, taken either singly or in combination, are legally precluded from making the present invention obvious under 35 U.S.C. § 103(a) because of the absence from both of Applicant's claimed novel ***enabling out-of-order processing of contexts . . . assigning each context a queue identifier (ID) and a sequence number, the queue ID uniquely identifying a flow of the context and the sequence number denoting an order of the context within the***

***flow . . . enforcing first in, first out (FIFO) synchronization context processing among the clusters for contexts having the same queue ID.***

All independent claims are believed to be in condition for allowance.

All dependent claims are believed to be dependent from allowable independent claims, and therefore in condition for allowance.

Favorable action is respectfully solicited.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,

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